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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/600,648	06/23/2003	Fiorenzo Brivio	7040.0060.01	6130

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EXAMINER	
MAKI, STEVEN D	
ART UNIT	**PAPER NUMBER**
1733	

DATE MAILED: 06/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/600,648	BRIVIO ET AL.	
	Examiner	Art Unit	
	Steven D. Maki	1733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 33-53 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 33-53 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☒ Certified copies of the priority documents have been received in Application No. 09/577,890.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 032404.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1) The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3) **Claims 33-34, 40-41 and 47-48 are rejected under 35 U.S.C. 102(b) as being anticipated by Crooker (US 2770013).**

Crooker teaches a method of making a tire comprising:

- providing a mold 10 which is made of two sections 11 and 12 wherein the mold comprises stud holders such as stud holders 46 (figure 8) or stud holders 42 (figure 6),
- inserting studs into seats of the stud holders,
- retaining the studs in the seats using magnets 49 (figure 8) or leaf spring elements (figure 6),
- providing (producing) a tire having an uncured tread,
- inserting the tire in the mold,
- vulcanizing the tire to form a vulcanized tire having the studs,
- removing the vulcanized tire from the mold wherein the studs are perpendicular to the tread surface as indicated by figure 1.

As to claims 33, 40 and 47, the claimed method is anticipated by the method of Crooker. As to partially projecting, see column 1 lines 20-21. As to "substantially perpendicular", see figure 1 of Crooker which illustrates the studs as being perpendicular to the tread surface. As to closing and opening the mold, one of ordinary skill in the art would readily understand that the mold of Crooker must be closed so that the described vulcanization can occur and must be opened in order to remove the tire. The studs must inherently maintain a substantially perpendicular arrangement as claimed since Crooker teaches that the studs are held in position during curing and shows the studs being perpendicular to the tread surface in figure 1.

As to the limitations of "a predefined degree of clearance exists between lateral portions of each stud and respective seat" (claim 33), "the studs are not subjected to any flexural stress" (claim 40) and "the studs are not subjected to traction caused by friction against the seats" (claim 47), each of these limitations are inherently met by Crooker since the magnet, which is "the sole holding means for a stud" (col. 4 lines 46-47 / emphasis added), releasably holds the stud. Some clearance must exist in order for the studs to be releasably held as described by Crooker. The above description fails to require a clearance of 0.2 mm as described in the specification at page 18.

Alternatively and at least with respect to claim 33, note that figure 6 illustrates a "clearance" between leaf spring elements 44 and the stud.

4) **Claims 33-34, 40-41 and 47-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crooker (US 2,770,013) and optionally Galli et al (US 5234326).**

Crooker, which is discussed above, is considered to anticipate claims 33-34,

40-41, and 47-48. In any event: As to claims 33, 40 and 47, it would have been obvious to one of ordinary skill in the art to provide the seats of Crooker's mold such that "a predefined degree of clearance exists between lateral portions of each stud and respective seat" (claim 33), "the studs are not subjected to any flexural stress" (claim 40) and "the studs are not subjected to traction caused by friction against the seats" (claim 47) in view of (1) Crooker's teaching to use the magnet as the *sole* holding means for releasably holding the stud, (2) Crooker's teaching that the magnetic embodiment is an *alternative* to the embodiment having a spring clip for frictionally engaging the stud and optionally (3) Galli et al's suggestion to form clearances of less than 0.08 mm in a tire mold so that trapped air can escape to thereby prevent formation of bubbles / burrs. The inference from the above noted teachings of Crooker is that frictional engagement is not necessary (and consequently a clearance can be used) in the magnetic embodiment. Galli et al motivates using clearances to prevent trapped air.

Furthermore, it would have been obvious to one of ordinary skill in the art to *close* the mold of Crooker after inserting the tire in the mold and *open* the mold such that "during the step of opening the mold, the studs maintain a substantially perpendicular arrangement" in view of (1) Crooker's teaching to vulcanize the tire in the mold *and* hold studs using a magnet during vulcanization of a tire in the mold so that the studs are perpendicular to the external surface of the vulcanized tire and optionally (2) Galli et al's teaching to insert a tire in a mold, close the mold, vulcanize the tire and then open the mold so that the tire can be vulcanized in a mold.

As to claims 34, 41 and 48, note Crooker's teaching to use magnets 49.

5) **Claims 35-37, 42-44 and 49-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crooker and optionally Galli et al as applied above and further in view of Eger (US 2121956).**

As to claims 35-37, 42-44 and 49-51, it would have been obvious to provide the metal studs (antiskid inserts) of Crooker with the claimed limitations in view of Eger's teaching to plate an metal antiskid insert for a tire tread with bronze (an alloy of copper and tin) and a rubber cement so as to obtain a proper bond between the metal antiskid insert and the rubber of the tread.

6) **Claims 35-39, 42-46 and 49-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crooker and optionally Galli et al and further in view of Torrey (US 2808621).**

As to claims 35-39, 42-46 and 49-53, it would have been obvious to use brass (an alloy of cooper and zinc) for Crooker's studs (antiskid inserts) as claimed in view of Torrey's suggestion to brass plate springs (anti-skid means for a tire tread) to insure a maximum bond with the rubber of the tire (col. 3 lines 1-3). The limitation of the brass coating layer being provided by electrolytic plating or electro-plating would have been obvious in view of (1) Torrey's suggestion to brass plate springs (anti-skid means for a tire tread) to insure a maximum bond with the rubber of the tire (col. 3 lines 1-3) and (2) it is taken as well known / conventional per se to form a coating of brass on a substrate by electrolytic plating or electro-plating.

Remarks

7) The remaining references are of interest.

8) No claim is allowed.

9) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven D. Maki whose telephone number is (571) 272-1221. The examiner can normally be reached on Mon. - Fri. 7:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Blaine Copenheaver can be reached on (571) 272-1156. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Steven D. Maki
June 9, 2005

STEVEN D. MAKI
PRIMARY EXAMINER
~~GROUP 1300~~
AU 1733

6-9-05